

Abstract

Purpose: Prenatal vitamins play a crucial role in people who become pregnant and who want to become pregnant. Prenatal vitamins contain vital minerals and vitamins that support healthy development of the baby and support the woman's daily nutrient requirements. Many prenatal vitamins contain supplements such as folic acid that reduces risk for spina bifida and anencephaly; calcium, that promotes healthy bone and teeth development; and iron, that can reduce the risk for anemia. Proper prenatal vitamin use helps ensure the growth of a healthy baby.

Jamaica is a developing country where tourism is a major profitable sector of their overall economy. The U.S. Bureau of Consular Affairs state that Montego Bay and Westmoreland, Jamaica have a level 4 travel advisory due to the rates of increased crime and low access to medical care. A complete travel ban on these neighborhoods results in decreased tourism and less money being brought into the local economy. This can also contribute to lack of medical care and education. The rate of spina bifida is 3 times greater in Jamaica as it is in the United States, occurring in 18 per 10,000 babies, compared to 5 per 10,000 in the United States.

Methods: This is a multi-center survey review of routine prenatal clinical care to determine adherence to prenatal vitamins. Data was collected via a questionnaire from Montego Bay, Jamaica and Westmoreland, Jamaica during the Jamaica Dental Mission Trip during-on the dates of 07/20/2025 through 07/23/2025. Our intervention included student-pharmacist-led patient education on the importance of prenatal vitamin use at a predetermined point of the questionnaire. -All patients-aboveparticipants were 18 years of age or older and assigned female at birth. at Montego Bay, Jamaica and Westmoreland, Jamaica at Flankers Health Clinic and Kew Park Elementary School Any patient who is assigned male at birthmale and any cisgender female patient that is under the age of 18 years old were excluded. The primary outcome of this study is to assess the baseline adherence of prenatal vitamins as compared to adherence to prenatal vitamins after student-pharmacist education. Secondary outcomes included barriers to prenatal vitamin use in the study population.

Results: A total of 67 individuals were surveyed during the 4 days of data collection. 70% (n=67, 47/67) of patients reported that after medication education, they would either continue to use or start using prenatal vitamins moving forward. We accounted for the fact that some of these patients were already taking prenatal vitamins prior to the encounter, so we looked more closely at the population who were not taking prenatal vitamins prior to the encounter. Of these 59 patients, 39 patients (66%) stated that they would be interested in initiating prenatal vitamin use. We also surveyed patients who still did not have interest in initiating prenatal vitamin use to investigate what barriers they have to initiating treatment. The most common barrier we found was not believing that they were necessary despite student-pharmacist-led counseling.

Conclusion: Our study showed that student-pharmacist-led education would improve adherence rates to prenatal vitamins. Though we are unable to follow up with the people in that area, our education does highlight the disparity of lack of patient education in the community. Our research shows that patients in this area would greatly benefit from more medical access and healthcare professionals to improve health literacy. We hope that our study will encourage greater access for that this community and improve their rates of prenatal vitamin use and decrease the rate of neural tube defects.